

ABSTRACT

An imaging device includes an optical plate made of an optically transparent material and forming a surface for receiving a finger. The imaging device includes a light source and an imaging system. The light source is positioned to illuminate the finger receiving surface.

5 The imaging system is positioned to receive light collected from the finger receiving surface and to form an image of a fingerprint pattern of the finger based on the received light. To reduce a thickness of the optical plate, the optical plate may have an index of refraction less than 1.49. In another design to reduce the thickness of the optical plate, the optical plate may have an index of refraction less than the index of refraction of finger skin. The optical plate
10 may be made of a silicone material.

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